



Forest Health Protection Pacific Southwest Region



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To: Sharon Heywood, Forest Supervisor, Shasta-Trinity National Forest

Subject: Port-Orford-cedar Root Disease Risk Reduction On FS Road 38N35Y (FHP Report No. N11-05)

On June 16, 2011, Kelly Wolcott (Wildlife Biologist), Ken Kellogg, Larry Arrington (Engineers) and I met at FS Road 38N35Y to discuss measures that could be taken to reduce the risk of introduction of *Phytophthora lateralis*, the pathogen that causes Port-Orford-cedar root disease in Port-Orford-cedar. We were joined by Mike Morningstar, who owns a parcel of land at the north end of the 38N35 road.

Background

Starting at FS Highway 25, approximately one mile west of Castle Crags State Park, FS Road 38N35Y runs for a little more than one mile along the drainage of the North Fork of Castle Creek. As is the case with many of the drainages in the area, Port-Orford-cedar is present along much of the road. In a ground-based survey that Dave Schultz (entomologist), Don Owen (CALFIRE pest management specialist) and I ran along the main stem of the Sacramento River from 1999 to 2002, we identified 10 infestations of Port-Orford-cedar root disease between the mouth of Shotgun Creek and Shasta Retreat, north of Dunsmuir. The closest infestation to FS Road 38N35Y is at the Riverside Campground at Castle Crags State Park, a little over four miles away.

In early 2010, a decision was made by the Shasta-Trinity National Forest, Shasta-McCloud Management Unit, to not renew the permit for a gate that spanned across the entrance of FS Road 38N35Y at FS Road 25. The gate, which had limited public access to Forest Service land near the north fork of Castle Creek, was removed later that year. This restriction of access was one of the reasons for removal of the gate. When removal of the gate was being discussed, Mr. Morningstar and Mr. Ted Testa, another local landowner, raised concerns regarding the impact of the gate's removal on the potential for introduction of *P. lateralis*. Mr. Morningstar again raised these concerns in an email to Congressman Wally Herger in January of this year. Although Mr. Morningstar and Mr. Testa's concerns were valid, the situation along the road was by no means unique, and there are a variety of other ways to reduce the risk of pathogen introduction without restricting access. These methods include various ways of separating the Port-Orford-cedar host from the pathogen (including removal of Port-Orford-cedar within 25-feet of the uphill side of the road and 50 feet from the downhill side), and implementing road improvements to reduce the potential for infested soil to be washed off of vehicles near Port-Orford-cedar. Over the last fifteen years, the Forest Service has implemented several roadside projects on the Shasta-McCloud Management Unit, and has made it a practice to restrict access only when there was no other alternative. Last February, I

invited Mr. Morningstar to join us in identifying specific areas where improvements could be made.

Recommendations

In a visit with Ken Kellogg in August, 2010, we identified several areas along the road where ditch cleaning, rocking of the road, and the addition of rolling dips would reduce the presence of standing water that could wash infested mud off of vehicles near potential Port-Orford-cedar hosts. Removal of Port-Orford-cedar seedlings and larger trees along the road was also discussed. In order to facilitate this work, I was able to provide \$4,000 in FY2010 Port-Orford-cedar Base Maintenance funds. Some of the application of rock was performed last fall, but much remains to be done.

The visit on June 16 with Ken Kellogg, Larry Arrington, Kelly Wolcott and Mike Morningstar did much to further identify specific areas where work on the road and on surrounding Port-Orford-cedar would significantly reduce the risk of introduction of the disease. Mr. Morningstar was particularly helpful with his intimate knowledge of the locations of both the locations of Port-Orford-cedar along the road and the water drainage patterns, and gave several excellent suggestions. In summary, I have the following recommendations for treatment:

1. Clear culverts and ditches along the road to ensure optimum function.
2. Apply spot rock on the road in areas where water puddles near Port-Orford-cedar for extended periods.
3. Install rolling dips to keep standing water from accumulating on the road near Port-Orford-cedar.
4. Clear small Port-Orford-cedar from gullies along the road and from areas near the road. Removal of Port-Orford-cedar is not necessary more than 25 feet above or 50 feet below the road, or more than 100 feet below where a stream crosses the road.
5. 2-3 locations were identified where removal of larger Port-Orford-cedar along the road and where water flows directly into the larger Port-Orford-cedar would be highly beneficial. This would entail the felling or girdling of approximately 10-15 Port-Orford-cedar of merchantable size (between 8-14-inches DBH).
6. Move large rock or install other barriers to prevent vehicle turnarounds and parking near Port-Orford-cedar. Install a "host-free" turnaround at the gate into Mr. Testa's and Mr. Morningstar's land.
7. Move large rock to prevent entry of vehicles into flat area that could be used as a dispersed campsite.
8. Install an interpretive sign that describes the unique features and importance of Port-Orford-cedar and encourages visitors to stay on the road, and to park and turn around at appropriate locations. Washing of vehicles before entering areas with Port-Orford-cedar should also be encouraged.
9. While implementing these recommendations, ensure that vehicles and equipment have been thoroughly washed before entering the area, and that rock or other materials come from uninfested areas. Ken Kellogg and Larry Arrington identified a suitable source of materials approximately one mile east of the project area. I've looked at the source area and there are no Port-Orford-cedar, and therefore no *P. lateralis* in the immediate vicinity.

In conclusion, with the removal of the gate across FS Road 38N35Y, now is the time to implement additional appropriate measures to reduce the potential for introduction of Port-Orford-cedar root disease into the area. The measures described above would do much to reduce the risk, and would greatly alleviate the concerns of the nearby landowners.

As I mentioned on June 16, SMMU now has \$4,000 in FY2011 Port-Orford-cedar Base Maintenance funds to implement these measures. Ken Kellogg assured me that this would implement most, if not all of these improvements. Ken Kellogg, Larry Arrington and I, with additional input from Mike Morningstar, can further pinpoint the specific areas that were identified for treatment on our visit on June 16.

If you have any questions regarding this report and/or need additional information please contact me at 530-226-2436.

/s/ Pete Angwin

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